

Shri Shivaji Education Society Amravati's
Science College, Congress Nagar, Nagpur

QUESTION BANK

(Total 100 M.C.Q. with Answer Key)

B.Sc. Biotechnology Semester-VI

Paper II- Animal and Plant Tissue Culture

- 1) Who is the father of plant tissue culture?
 - a) Gottlieb Haberlandt
 - b) Antonie Van Leeuwenhoek
 - c) Albert Einstein
 - d) Thomas Edison

- 2) Which of the following is an explant?
 - a) Leaf
 - b) Node
 - c) Anther
 - d) all of the above

- 3) Which explant is used in embryo culture?
 - a) Leaf
 - b) Anther
 - c) Embryo
 - d) Root hair

- 4) Which of the following is an example of organ culture?
 - a) Anther
 - b) Node
 - c) Stem
 - d) None of the above

- 5) Which of the following is plant growth hormone?
 - a) Auxin
 - b) hCG

- c) Prolactin
d) Insulin
- 6) Which of the following hormone is needed for shoot culture?
a) Cytokinin
b) Ethylene
c) Gibberllin
d) Absciscic acid
- 7) Concentration of agar used in plant tissue culture media
a) 3-5%
b) 1-2%
c) 2-3%
d) 0.5-1%
- 8) Expand MS media
a) Murashige & Skoog
b) Mark & Shark
c) More & Salt
d) Make & Slate
- 9) Half strength MS media is used for:
a) Callus culture
b) Organ culture
c) Proptoplast culture
d) Seed germination
- 10) Which of the following media is used for animal tissue culture?
a) Nutrient agar
b) Dulbecco's Modified Eagle's Medium
c) Luria-Bertani agar
d) Yeast extract mannitol agar
- 11) The most common Nitrogen source used in plant tissue culture media :
a) Carbohydrate
b) Lipid
c) Amino acid

d) Mineral

12) Which of the following shows the property of totipotency?

- a) Plants
- b) Animal
- c) Yeast
- d) Protozoa

13) The most common carbon source used in plant tissue culture media

- a) Galactose
- b) Peptone
- c) Sucrose
- d) Mannose

14) Expand FSB

- a) Fetal Bovine Serum
- b) Fat Bovine Serum
- c) Food Bovine Serum
- d) None of these

15) Micropropagation is also known as

- a) Macropropagation
- b) Clonal propagation
- c) Propagation
- d) Irrigation

16) Haploids are

- a) $2n$
- b) n
- c) 0
- d) $3n$

17) Protoplast are found in

- a) Plants
- b) Fish
- c) Frog

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18) Expand Ti plasmid

- a) Tumor inducing
- b) Totipotency
- c) Tumor
- d) Topatoes

19) Which of the following are example of Bt crop

- a) Tomato
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- c) Brinjal
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20) Cryopreservation

- a) Preservation in hot state
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21) Which of the following is steps involved in cryopreservation

- a) Freezing
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22) Binary vector contains

- a) Two vectors
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- c) Four vectors
- d) No vector

23) Cryoprotectants affect the viability of

- a) Cells
- b) Fats
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24) Which ion forms pores in plasma membrane?

- a) Mn^{2+}
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25) Viruses can be used as

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- a) Sugars
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- c) Amino Acids

d) Vitamins and minerals

30) Which of the following vectors is used in crop improvement and crop management?

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- c) Cosmid
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- a) Cork cells
- b) Meristem
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35) This is not a basic component of culture media for plant cultivation

- a) Amino acids
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- c) A complex mixture of salts
- d) Serum albumin

36) Which of the following is the first transgenic crop?

- a) Flax
- b) Tobacco
- c) Plastic
- d) Cotton

37) Which of the following is not a feature of plant cells?

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- b) Cell wall outside the cell membrane
- c) Presence of centrioles
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42) In which part of the plant the crown gall disease is caused

- a) Roots
- b) Stem
- c) Leaf
- d) Branches

43) Size of Ti plasmid

- a) Less than 100kb
- b) More than 200kb
- c) More than 10kb
- d) Less than 20kb

44) The T-DNA contains how many genes have infectious property

- a) 2
- b) 4
- c) 6
- d) 8

45) Source of Ti-plasmid

- a) *Agrobacterium tumefaciens*
- b) *Staphylococcus aureus*
- c) *Escherichia coli*
- d) *Streptococcus pneumoniae*

46) Bt cotton is a

- a) Cloned plant
- b) Transgenic plant
- c) Hybrid plant
- d) Mutated plant

47) The protein crystals of *B. thuringiensis* contain toxic

- a) Bactericidal protein
- b) Fungicidal protein
- c) Insecticidal protein
- d) Antibiotic protein

48) The gene which was used to produce insect-resistant cotton plant was taken from

- a) *Anabaena azollae*
- b) *Agrobacterium tumefaciens*
- c) *Bacillus thuringiensis*
- d) *Bacillus subtilis*

49) A gall producing gene in *Agrobacterium tumefaciens* is

- a) cry gene
- b) nif gene
- c) T DNA
- d) beta gene

50) Bt gene which produces a protein toxic to insect larvae is

- a) try
- b) pry
- c) ary
- d) cry

51) The growth of animal cells in vitro in a suitable culture medium is called

- a) Gene expression
- b) Transgenesis
- c) Plant tissue culture
- d) Animal cell culture

52) Name the type of culture which is prepared by inoculating directly from the tissue of an organism to culture media?

- a) Primary cell culture
- b) Secondary cell culture
- c) Cell lines
- d) Transformed cell culture

53) What is a cell line?

- a) Multilayer culture

- b) Transformed cells
- c) Multiple growth of cells
- d) Sub culturing of primary culture

54) Which of the following is the characteristics of a normal cell?

- a) Anchorage independent
- b) Continuous cell lines
- c) Dependent on external growth factor
- d) No contact inhibition

55) Which of the following is NOT the part of growth medium for animal culture?

- a) Starch
- b) Serum
- c) Carbon source
- d) Inorganic salts

56) Who is the father of Animal cell culture?

- a) Ross Harrison
- b) Thomas Edison
- c) Albert Einstein
- d) Antonie Van Leeuwenhoek

57) Which of the following shows the property of pluripotency?

- a) Plants
- b) Animal
- c) Yeast
- d) Protozoa

58) Recombination of different types of cells to form more defined tissue or organ is known as

- a) Organotypic culture
- b) Primary culture
- c) Secondary culture
- d) Cell line

59) pH of culture medium is initially controlled by

- a) Presence of CO₂
- b) Presence of Bicarbonate buffer
- c) Addition of bases
- d) None of the above

60) Cells which have undergone transformation frequently become

- a) Anchorage independent
- b) Anchorage dependent
- c) Stable
- d) Unstable

61) Which of the following is not the example of a live attenuated vaccine?

- a) Tetanus vaccine
- b) MMR vaccine
- c) Varicella (chickenpox) vaccine
- d) Influenza vaccine

62) Subunit vaccine is all, except

- a) A whole purified virus
- b) A purified part or pieces of the antigen
- c) An expensive type of vaccine
- d) A Hepatitis-B vaccine

63) Which of the following age group is eligible and are recommended to get the Hepatitis B vaccination?

- a) Infants
- b) 18 and younger
- c) Person injecting drugs
- d) All of the above

64) Vaccination was invented by

- a) Jenner
- b) Pasteur
- c) Watson
- d) Crick

- 65) For which viral disease, vaccine has been recently developed through the use of tissue culture?
- a) Measles
 - b) Mumps
 - c) Rabies
 - d) Smallpox
- 66) The Golden Rice variety is rich in
- a) Vitamin C
 - b) B-carotene and Ferritin
 - c) Biotin
 - d) Lysine
- 67) The vaccines prepared through recombinant DNA technology are
- a) Third generation vaccines
 - b) First generation vaccines
 - c) Second generation vaccines
 - d) None
- 68) The first transgenic plant to be produced is
- a) Brinjal
 - b) Tobacco
 - c) Rice
 - d) Cotton
- 69) Excision and insertion of a gene is called
- a) Biotechnology
 - b) Genetic Engineering
 - c) Cytogenetics
 - d) Gene therapy
- 70) Which bacterium is used in the production of insulin by genetic engineering?
- a) Saccharomyces
 - b) Rhizobium
 - c) Escherichia
 - d) Mycobacterium

71) A person with the hereditary disease can be cured with the help of

- a) Gene therapy
- b) Cloning
- c) Dialysis
- d) Chemotherapy

72) The inserted normal gene takes over the function of

- a) Correct gene
- b) Right gene
- c) Non-functional gene
- d) Functional gene

73) In which year was the first clinical gene therapy given?

- a) 2010
- b) 1990
- c) 1995
- d) 2000

74) Lymphocytes are

- a) Immortal
- b) Mortal
- c) Mortor
- d) Immortor

75) What kind of disease can be cured with the help of gene therapy?

- a) Infectious
- b) Hereditary
- c) Physiological
- d) Acute

76) Animals that have had their DNA manipulated to possess and express an extra (foreign) gene are known as

- a) Transgenic animals
- b) Animals

- c) Infected animals
- d) Bt animals

77) How many polypeptide chains does insulin consist of?

- a) 4
- b) 3
- c) 2
- d) 1

78) The polypeptide chains present in insulin is connected by

- a) ionic bond
- b) covalent bond
- c) disulphide bond
- d) hydrophobic interactions

79) In mammals insulin is secreted as

- a) enzyme
- b) lipid
- c) RNA
- d) pro-hormone

80) Which organism was used to produce recombinant insulin

- a) Cyanobacteria
- b) *E.coli*
- c) *Saccharomyces cerevisiae*
- d) *B. subtilis*

81) IVF stands for

- a) Inevitable fertilisation
- b) In vitro fertilisation
- c) In vitro fermentation
- d) Inverted fertilisation

82) First mammal produced by IVF was _____

- a) Calf
- b) Mouse
- c) Rabbit
- d) Monkey

- 83) IVF involves transfer of
- a) Ovum into the fallopian tube
 - b) Zygote into the fallopian tube
 - c) Zygote into the uterus
 - d) Embryo with 16 blastomeres into the fallopian tube

84) What follows IVF?

- a) Coitus
- b) Embryo transfer
- c) Embryo sacrifice
- d) Embryo delivery

85) Which of the following scientist was not responsible for developing somatic hybrids?

- a) Steward
- b) Halperin
- c) Wetherell
- d) Skoog

86) What is an explant?

- a) A part of plant grown under soil
- b) Any part of a plant taken out and grown in a test tube
- c) A specific part of a plant grown in a test tube
- d) Leaves grew under test tube

87) What are somaclones?

- a) Plants chemically identical to the original plant
- b) Plants morphologically identical to the original plant
- c) Plants anatomically identical to the original plant
- d) Plants genetically identical to the original plant

88) Which of the following plant's meristem has not been successfully cultured?

- a) Banana

- b) Apple
- c) Sugarcane
- d) Potato

89) What is protoplast?

- a) Cell wall + Plasma membrane
- b) Plant cell – cell wall
- c) Cytoplasm + cell wall
- d) Plasma membrane – cytoplasm

90) What are somatic hybrids?

- a) Hybrid protoplasts
- b) Protoplasts
- c) Fused plasmids
- d) Fused Chloroplast

91) Which of the following is not an application of tissue culture?

- a) Rapid Clonal Propagation
- b) Somaclonal Variations
- c) Embryo rescue
- d) Transgenic plants

92) Which of the following is not a method by which pathogens affect the yield of crops?

- a) Reduce the quantity of yield
- b) Reduce the quality of crop produce
- c) Increase in cost production
- d) Increase the flowering period

93) Which of the following is not a common measure of controlling viral infections?

- a) Using healthy virus-free seeds
- b) Antibiotics
- c) Using resistant varieties
- d) Protection from insect vectors

94) Embryo initiation is facilitated by

- a) GA3
- b) BPA
- c) ABA
- d) 2,4 D

95) Which of the following culture is used for the production of primary and secondary metabolites?

- a) Cell suspension culture
- b) Callus culture
- c) Protoplast culture
- d) Somatic hybrid

96) Name the strategy where two-plasmid system is used for the introduction of the gene?

- a) Binary vector system
- b) Co-integration vector strategy
- c) Agrobacterium
- d) Selectable marker strategy

97) Which of the following is supplemented with vitamin A in order to improve its nutritional quality?

- a) Cotton
- b) Potato
- c) Tomato
- d) Rice

98) Which of the following is NOT the feature of plant cells?

- a) Presence of centrioles
- b) The cell wall outside the cell membrane
- c) Cell-cell communication through plasmodesmata
- d) Consists of plastids

99) Tween 20 is

- a) Ion
- b) Detergent

- c) Hormone
 - d) Oil
- 100) Incubator used in Animal tissue culture laboratory
- a) BOD Incubator
 - b) Bacteriological Incubator
 - c) Infant Incubator
 - d) Carbon Dioxide Incubator

Shivaji Science College, Nagpur 2022

ANSWER KEY

B.Sc. Biotechnology Semester-VI Paper II- Animal and Plant Tissue Culture

1. a) Gottlieb Haberlandt
2. d) all of the above
3. c) Embryo
4. a) Anther
5. a) Auxin
6. a) Cytokinin
7. d) 0.5-1%
8. a) Murashige & Skoog
9. d) Seed germination
10. b) Dulbecco's Modified Eagle's Medium
11. c) Amino acid
12. a) Plants
13. c) Sucrose
14. a) Fetal bovine serum
15. b) Clonal propagation
16. b) n
17. a) Plants
18. a) Tumor inducing
19. c) Brinjal
20. c) Preservation in frozen state
21. d) All of the above
22. a) Two vectors
23. a) Cells
24. c) Ca^{2+}
25. a) Vectors
26. d) Cell suspension
27. b) Auxin and cytokinin
28. a) Anther culture
29. b) Hormones
30. a) Agrobacterium

31. c) Auxin
32. c) Synthetic media
33. b) Polyethylene glycol
34. b) Meristem
35. d) Serum albumin
36. b) Tobacco
37. c) Presence of centrioles
38. b) Plant tissue culture
39. d) Polyphenols
40. a) Adventitious shoot formation
41. a) Ethylene
42. b) Stem
43. b) More than 200kb
44. d) 8
45. a) *Agrobacterium tumefaciens*
46. b) Transgenic plant
47. c) Insecticidal protein
48. c) *Bacillus thuringiensis*
49. c) T-DNA
50. d) cry
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69. b) Genetic engineering
70. c) Escherichia
71. a) Gene therapy
72. c) Non-functional gene
73. b) 1990
74. b) Mortal
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77. c) 2
78. c) disulphide bond
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95. a) Cell suspension culture
96. a) Binary vector system
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98. a) Presence of centrioles
99. b) Detergent
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50) Bt gene which produces a protein toxic to insect larvae is

- a) try
- b) pry
- c) ary
- d) cry

51) The growth of animal cells in vitro in a suitable culture medium is called

- a) Gene expression
- b) Transgenesis
- c) Plant tissue culture
- d) Animal cell culture

52) Name the type of culture which is prepared by inoculating directly from the tissue of an organism to culture media?

- a) Primary cell culture
- b) Secondary cell culture
- c) Cell lines
- d) Transformed cell culture

53) What is a cell line?

- a) Multilayer culture

- b) Transformed cells
- c) Multiple growth of cells
- d) Sub culturing of primary culture

54) Which of the following is the characteristics of a normal cell?

- a) Anchorage independent
- b) Continuous cell lines
- c) Dependent on external growth factor
- d) No contact inhibition

55) Which of the following is NOT the part of growth medium for animal culture?

- a) Starch
- b) Serum
- c) Carbon source
- d) Inorganic salts

56) Who is the father of Animal cell culture?

- a) Ross Harrison
- b) Thomas Edison
- c) Albert Einstein
- d) Antonie Van Leeuwenhoek

57) Which of the following shows the property of pluripotency?

- a) Plants
- b) Animal
- c) Yeast
- d) Protozoa

58) Recombination of different types of cells to form more defined tissue or organ is known as

- a) Organotypic culture
- b) Primary culture
- c) Secondary culture
- d) Cell line

59) pH of culture medium is initially controlled by

- a) Presence of CO₂
- b) Presence of Bicarbonate buffer
- c) Addition of bases
- d) None of the above

60) Cells which have undergone transformation frequently become

- a) Anchorage independent
- b) Anchorage dependent
- c) Stable
- d) Unstable

61) Which of the following is not the example of a live attenuated vaccine?

- a) Tetanus vaccine
- b) MMR vaccine
- c) Varicella (chickenpox) vaccine
- d) Influenza vaccine

62) Subunit vaccine is all, except

- a) A whole purified virus
- b) A purified part or pieces of the antigen
- c) An expensive type of vaccine
- d) A Hepatitis-B vaccine

63) Which of the following age group is eligible and are recommended to get the Hepatitis B vaccination?

- a) Infants
- b) 18 and younger
- c) Person injecting drugs
- d) All of the above

64) Vaccination was invented by

- a) Jenner
- b) Pasteur
- c) Watson
- d) Crick

- 65) For which viral disease, vaccine has been recently developed through the use of tissue culture?
- a) Measles
 - b) Mumps
 - c) Rabies
 - d) Smallpox
- 66) The Golden Rice variety is rich in
- a) Vitamin C
 - b) B-carotene and Ferritin
 - c) Biotin
 - d) Lysine
- 67) The vaccines prepared through recombinant DNA technology are
- a) Third generation vaccines
 - b) First generation vaccines
 - c) Second generation vaccines
 - d) None
- 68) The first transgenic plant to be produced is
- a) Brinjal
 - b) Tobacco
 - c) Rice
 - d) Cotton
- 69) Excision and insertion of a gene is called
- a) Biotechnology
 - b) Genetic Engineering
 - c) Cytogenetics
 - d) Gene therapy
- 70) Which bacterium is used in the production of insulin by genetic engineering?
- a) Saccharomyces
 - b) Rhizobium
 - c) Escherichia
 - d) Mycobacterium

71) A person with the hereditary disease can be cured with the help of

- a) Gene therapy
- b) Cloning
- c) Dialysis
- d) Chemotherapy

72) The inserted normal gene takes over the function of

- a) Correct gene
- b) Right gene
- c) Non-functional gene
- d) Functional gene

73) In which year was the first clinical gene therapy given?

- a) 2010
- b) 1990
- c) 1995
- d) 2000

74) Lymphocytes are

- a) Immortal
- b) Mortal
- c) Mortor
- d) Immortor

75) What kind of disease can be cured with the help of gene therapy?

- a) Infectious
- b) Hereditary
- c) Physiological
- d) Acute

76) Animals that have had their DNA manipulated to possess and express an extra (foreign) gene are known as

- a) Transgenic animals
- b) Animals

- c) Infected animals
- d) Bt animals

77) How many polypeptide chains does insulin consist of?

- a) 4
- b) 3
- c) 2
- d) 1

78) The polypeptide chains present in insulin is connected by

- a) ionic bond
- b) covalent bond
- c) disulphide bond
- d) hydrophobic interactions

79) In mammals insulin is secreted as

- a) enzyme
- b) lipid
- c) RNA
- d) pro-hormone

80) Which organism was used to produce recombinant insulin

- a) Cyanobacteria
- b) *E.coli*
- c) *Saccharomyces cerevisiae*
- d) *B. subtilis*

81) IVF stands for

- a) Inevitable fertilisation
- b) In vitro fertilisation
- c) In vitro fermentation
- d) Inverted fertilisation

82) First mammal produced by IVF was _____

- a) Calf
- b) Mouse
- c) Rabbit
- d) Monkey

- 83) IVF involves transfer of
- a) Ovum into the fallopian tube
 - b) Zygote into the fallopian tube
 - c) Zygote into the uterus
 - d) Embryo with 16 blastomeres into the fallopian tube

84) What follows IVF?

- a) Coitus
- b) Embryo transfer
- c) Embryo sacrifice
- d) Embryo delivery

85) Which of the following scientist was not responsible for developing somatic hybrids?

- a) Steward
- b) Halperin
- c) Wetherell
- d) Skoog

86) What is an explant?

- a) A part of plant grown under soil
- b) Any part of a plant taken out and grown in a test tube
- c) A specific part of a plant grown in a test tube
- d) Leaves grew under test tube

87) What are somaclones?

- a) Plants chemically identical to the original plant
- b) Plants morphologically identical to the original plant
- c) Plants anatomically identical to the original plant
- d) Plants genetically identical to the original plant

88) Which of the following plant's meristem has not been successfully cultured?

- a) Banana

- b) Apple
- c) Sugarcane
- d) Potato

89) What is protoplast?

- a) Cell wall + Plasma membrane
- b) Plant cell – cell wall
- c) Cytoplasm + cell wall
- d) Plasma membrane – cytoplasm

90) What are somatic hybrids?

- a) Hybrid protoplasts
- b) Protoplasts
- c) Fused plasmids
- d) Fused Chloroplast

91) Which of the following is not an application of tissue culture?

- a) Rapid Clonal Propagation
- b) Somaclonal Variations
- c) Embryo rescue
- d) Transgenic plants

92) Which of the following is not a method by which pathogens affect the yield of crops?

- a) Reduce the quantity of yield
- b) Reduce the quality of crop produce
- c) Increase in cost production
- d) Increase the flowering period

93) Which of the following is not a common measure of controlling viral infections?

- a) Using healthy virus-free seeds
- b) Antibiotics
- c) Using resistant varieties
- d) Protection from insect vectors

94) Embryo initiation is facilitated by

- a) GA3
- b) BPA
- c) ABA
- d) 2,4 D

95) Which of the following culture is used for the production of primary and secondary metabolites?

- a) Cell suspension culture
- b) Callus culture
- c) Protoplast culture
- d) Somatic hybrid

96) Name the strategy where two-plasmid system is used for the introduction of the gene?

- a) Binary vector system
- b) Co-integration vector strategy
- c) Agrobacterium
- d) Selectable marker strategy

97) Which of the following is supplemented with vitamin A in order to improve its nutritional quality?

- a) Cotton
- b) Potato
- c) Tomato
- d) Rice

98) Which of the following is NOT the feature of plant cells?

- a) Presence of centrioles
- b) The cell wall outside the cell membrane
- c) Cell-cell communication through plasmodesmata
- d) Consists of plastids

99) Tween 20 is

- a) Ion
- b) Detergent

- c) Hormone
 - d) Oil
- 100) Incubator used in Animal tissue culture laboratory
- a) BOD Incubator
 - b) Bacteriological Incubator
 - c) Infant Incubator
 - d) Carbon Dioxide Incubator

Shivaji Science College, Nagpur 2022

ANSWER KEY

B.Sc. Biotechnology Semester-VI Paper II- Animal and Plant Tissue Culture

1. a) Gottlieb Haberlandt
2. d) all of the above
3. c) Embryo
4. a) Anther
5. a) Auxin
6. a) Cytokinin
7. d) 0.5-1%
8. a) Murashige & Skoog
9. d) Seed germination
10. b) Dulbecco's Modified Eagle's Medium
11. c) Amino acid
12. a) Plants
13. c) Sucrose
14. a) Fetal bovine serum
15. b) Clonal propagation
16. b) n
17. a) Plants
18. a) Tumor inducing
19. c) Brinjal
20. c) Preservation in frozen state
21. d) All of the above
22. a) Two vectors
23. a) Cells
24. c) Ca^{2+}
25. a) Vectors
26. d) Cell suspension
27. b) Auxin and cytokinin
28. a) Anther culture
29. b) Hormones
30. a) Agrobacterium

31. c) Auxin
32. c) Synthetic media
33. b) Polyethylene glycol
34. b) Meristem
35. d) Serum albumin
36. b) Tobacco
37. c) Presence of centrioles
38. b) Plant tissue culture
39. d) Polyphenols
40. a) Adventitious shoot formation
41. a) Ethylene
42. b) Stem
43. b) More than 200kb
44. d) 8
45. a) *Agrobacterium tumefaciens*
46. b) Transgenic plant
47. c) Insecticidal protein
48. c) *Bacillus thuringiensis*
49. c) T-DNA
50. d) cry
51. d) Animal cell culture
52. a) Primary cell culture
53. d) Sub culturing of primary culture
54. c) Dependent on external growth factor
55. a) Starch
56. a) Ross Harrison
57. b) Animal
58. a) Organotypic culture
59. b) Presence of Bicarbonate buffer
60. a) Anchorage independent
61. a) Tetanus vaccine
62. a) A whole purified virus
63. d) All of the above
64. a) Jenner
65. a) Measles
66. b) B-carotene and Ferritin
67. a) Third generation vaccines

68. b) Tobacco
69. b) Genetic engineering
70. c) Escherichia
71. a) Gene therapy
72. c) Non-functional gene
73. b) 1990
74. b) Mortal
75. b) Hereditary
76. a) Transgenic animals
77. c) 2
78. c) disulphide bond
79. d) pro-hormone
80. b) *E.coli*
81. b) In vitro fertilisation
82. c) Rabbit
83. b) Zygote into the fallopian tube
84. b) Embryo transfer
85. d) Skoog
86. b) Any part of a plant taken out and grown in a test tube
87. d) Plants genetically identical to the original plant
88. b) Apple
89. b) Plant cell – cell wall
90. a) Hybrid protoplasts
91. c) Embryo rescue
92. d) Increase the flowering period
93. b) Antibiotics
94. d) 2,4 D
95. a) Cell suspension culture
96. a) Binary vector system
97. d) Rice
98. a) Presence of centrioles
99. b) Detergent
100. d) Carbon Dioxide Incubator